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### NOTES ON IRISH RED DEER.

BY RICHARD J. USSHER.

Dr. Charles Smith, in his 'Ancient and Present State of the County and City of Waterford,' published in 1774, remarks (p. 343):—"In the mountains of Knockmealdown we have some remains of the Red-deer, but so few that it is to be feared the species will in a few years be extinct, especially if a little more care be not taken of them." This lofty range, which culminates at a height of 2609 feet, occupies a large area between the counties of Waterford and Tipperary, and its great unenclosed tracts of moor, interspersed formerly with oak woods, were the natural home of the wild native Deer, though they would have been quite unsuitable for the preservation of an introduced breed in those lawless times, when, moreover, these mountains were divided between different estates whose owners were not in harmony.

In that same year a disputed question of boundary on these very mountains gave rise to a suit between the Duke of Devonshire and Lord Cahir, and the evidence of some of the witnesses in this suit, examined in 1775, is interesting as confirming the alleged existence of Red-deer on these mountains at that date. From the papers in this suit, preserved at Lismore Castle, Mr. Francis E. Currey, for many years the agent of the Duke of Devonshire in this part of Ireland. has kindly furnished me with the following extracts:—

"John Power, of Kilbeg, aged eighty, says that in the time of Richard late Earl of Burlington [who died in 1753] the right of Thomas Lord Cahir

was not admitted to sport south of Laghtalassinig, the present Gap at the boundary between the counties of Waterford and Tipperary; that about forty years ago [1735], one Ellis, huntsman to Lord Cahir, was hunting a hind on the said mountains and killed the same at a place called Monygorm, within two miles of Lismore; and saith the drivers and gamekeepers stopped the hounds and took away the deer.

"Darby Cunningham, of Ballynatray, aged seventy, saith that the right of Thomas Lord Cahir to sport south of Lachtalassinig was not admitted, but was opposed by the servants of Lord Burlington, and he was present thereat; but that the gentlemen who were out with Lord Cahir hunted and killed the said deer in Lord Burlington's estate in spite of Lord Burlington's servants.

"The same witness, in reply to cross-interrogatories, says that Thomas Lord Cahir did sometimes with his huntsmen and servants come to hunt deer on the said disputed mountains, but were always prevented from so doing by the servants of the Earl of Burlington, except that when Lord Cahir or his people 'roused a stag' on their side of the bounds, they then had liberty to hunt him wherever he run.

"Darby Ryan, of Lismore, aged sixty, saith that the right of Lord Cahir to sport on the said disputed mountains was disputed and opposed by the servants and agents of Lord Burlington, and the said deponent was present when such right was disputed and opposed; and saith during deponent's time Lord Cahir's people were not admitted to sport on the said disputed mountains, unless they proved that they found the deer on Lord Cahir's estate."

"The disputed mountains," says Mr. Currey, "were part of the Knockmealdown range, extending from the Gap to the top of Knockmealdown, including the Sugar-loaf Mountain, and extending south somewhat farther than the present Police Barrack. Mention is made in the depositions of the witnesses of the existence in the time of Lord Burlington of oak woods and coppices on parts of the disputed ground, and of some of them being cut down."

That Red-deer were formerly abundant in this part of the country appears from numerous bones and portions of antlers of the species which I found last summer (1881) in the kitchen-midden of a rath near Whitechurch, associated with bones of domestic animals, charcoal, knives and other objects of iron, as well as pins and whorls made of the deer's antlers. Portions of antlers occurred, even at the surface, with moss adhering to them. There is a tradition that this rath was a robber's strong-

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fea Th to hold. It had been evidently inhabited for a considerable length of time, for the kitchen-midden, which filled a cave descending at a steep angle, was excavated to a depth of more than thirty feet, and the remains of Red-deer occurred throughout it.

I have also found the antlers and bones of this species in several other kitchen-middens and caves in this neighbourhood, associated with charcoal, hand-made pottery, objects of iron and bones of ox, goat, pig, and horse. I have obtained them, moreover, in the kitchen-middens of the "crannog," or lake-dwelling, in the peat deposit on Ardmore beach, which, from advancing denudation, is now covered by the sea at every tide.

Numbers of bones and entire pairs of antlers, some of which are in my possession, have been found in the muds and sands of the estuary above Dungarvan Bridge, where the boatmen frequently find them only partially embedded in the sand, and partially exposed to the tidal waters, so that small sea-shells attach themselves to the antlers. I could mention other localities in this valley where similar remains have been found in deposits of mud and peat. I have been shown a fine antler, with the "throstle's nest," which was taken up by a net out of the Blackwater, near Dromana.

In many parts of Ireland, moreover, and here among the rest, large patches of blackened soil may be seen turned up by the plough or spade. These were ancient cooking-places, and the charcoal that accumulated there has imparted its colour to the soil. Such spots are termed in Irish the "roasting of the deer." The venison was no doubt baked in pits lined with heated stones, as the cracked and burned slabs of sandstone testify, in the same manner as is in use among the natives of Australia and other countries.

A tradition preserved among the peasantry is related by a very old man named Michael Quarry, still living at Kilnafrehan (as was stated by the late Mr. W. Williams, of Dungarvan), to the effect that in the time of Cromwell a lady who had large estates in the parish of Kilgobinet used annually to visit and be entertained by all her tenantry, who were obliged to provide a Red-deer for the feast. At Ballyknock she and her eight sons were entertained by Thomas Towhill, who, either for want of means or the inclination to procure venison, had a black sheep slaughtered.

The localities above mentioned are all in the vicinity of the Colligan River, which rises in the Comeragh Mountains and flows into Dungarvan Harbour by Shandon. The Red-deer's antlers I have got from the river-bed near the latter place, in a comparatively recent state, seem to prove that Red-deer lived on the Comeraghs at no distant period.

In Erris, the last haunt of the Red-deer in the Co. Mayo, a few existed so late as 1847, when the last survivors of this noble race were slaughtered for food by the famine-stricken peasantry.

Happily the Red-deer is not quite extinct in Ireland, a few being still to be found in Kerry, where they are strictly preserved by Lord Kenmare and Mr. Herbert of Muckross, whose estates adjoin.

# ORNITHOLOGICAL NOTES FROM NORTH LINCOLNSHIRE DURING THE AUTUMN OF 1881.

#### By JOHN CORDEAUX.

On the 25th July a flock of eleven Canada Geese, probably "escapes" from some private waters, was seen flying up and down the dock outfall at Grimsby; subsequently they passed over the end of the town, only just clearing the chimney tops. Whimbrel were first heard on the evening of July 18th (close and threatening thunder), passing across the parish from east to west. On the 25th the first Snipe appeared, and on the 30th the Green Sandpiper returned to our beck.

Young Wheatears were very numerous during the last week in August. On September 4th thousands were seen along the coast, continuing tolerably plentiful to the 17th. On the night also of September 3rd large numbers of Wheatears, Redstarts, and other small birds were fluttering round the Heligoland Lighthouse from 3 a.m. till daylight. Out of forty-nine Wheatears captured there were only three old ones, and amongst forty-seven Redstarts eleven old ones. On the 4th also large numbers of Redstarts occurred on the sand-hills near the mouth of the Humber; these were almost entirely birds of the year, only four old ones being observed: like the Wheatears they were slowly

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making their way to the south, the migration, as is the rule in these cases, extending only a short distance inland.

I saw the first Corn Crake on September 1st, wind N., and blowing half-a-gale; and on the 3rd a pair of Golden Plovers, old birds, both of which I shot. Mr. W. Eagle Clarke, when at Spurn, on September 6th, at 5.15 p.m., wind changing from N. to S., saw an immense flock of Golden Plovers, extending at least three or four miles, passing over Spurn from the Lincolnshire coast northwards. In 1880 it was on August 22nd, in the same locality, that my friend Major Seddon saw thousands of Golden Plover passing north along the sea-shore in detached flocks, flying in lines and arrow-heads. This large migration of Golden Plover to the northwards, in two consecutive seasons, is remarkable, as it is difficult to surmise where they started from.

During the first week in September the Meadow Pipits were migrating southward in large numbers, and continued to arrive and depart at intervals all through the month. On the 13th they were seen passing all day along the line of sand-dunes of Spurn towards the south.

There were young Knot on the Humber foreshore as early as the first week in August, and at the same period three Grey Plover were seen, old black-breasted birds. The young of the year were very numerous on the flats at the end of the month and early in September. On the 12th September seven old birds, four males and two females (the other lost), were shot on the muds at Kilnsea; all were in beautiful summer plumage.

On September 8th, in the evening, just at dusk, two Woodcocks, coming in from the sea, topped the embankment and pitched into some standing barley, where, however, I did not find them when looked for on the following morning, having most probably passed inland. The Woodcock was first seen at Spurn on the 4th September, and from that date to the end of October arrived in a very desultory fashion, by twos and threes, and not in the large flights which are characteristic of their ordinary migration. Very few were seen at Heligoland, and not one before November 30th. In the autumn migration Woodcocks strike the whole of our east coast between North Ronaldshay in Orkney to the South Foreland, the greater number always coming in on the coasts of Norfolk, Lincolnshire, and Yorkshire, south of Flamborough. This bird is much less frequent in Shetland than

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the Orkneys, and only one instance is recorded of its occurrence in the Faroes. The northern range of its migratory flight will thus be about lat. 61° N. Woodcocks come directly from the east, going westward. Grey Plover follow much the same line, are rare wanderers to Shetland, and, so far as I am aware, have never been recorded from Faroe.\* In the spring migration the northern limit on the English coast of the Common Godwit, the Knot, and Grey Plover does not appear to extend beyond latitude 53° 42′ N., the Humber, from which point they strike directly over the North Sea.

A Turtle Dove was seen on September 15th on the rifle-butts in this parish close to the Humber embankment. Curlew Sandpiper and Little Stint occurred numerously at Spurn and the Humber mud-flats in September. Two of the former, in summer plumage, were seen at Spurn on July 31st. In September they might be found in flocks of from forty to fifty, all apparently young birds. The Little Stints prefer the muddy foreshores of the river to the sandy flats of the coast; the Curlew Sandpipers might be found indiscriminately in both localities, often feeding in company with Dunlins. As late as the 7th October I saw a flock of about a dozen Little Stints on the muds opposite this parish. On the wing they are readily distinguishable from the Dunlin by their size as well as the silvery white of the under parts, and have altogether a much whiter appearance. shanks also were common during the autumn, and as many as a dozen seen at the same time. On the 16th I obtained a Barn Owl, which was captured at sea on board one of the fishingsmacks: it was a bird of the year, and not of that fulvous variety which occasionally occurs in districts contiguous to the east coast.

On the morning of September 21st, when returning from Spurn to Grimsby, we passed a flock of about sixty Scoters; amongst them was one altogether of a smoke-grey or dirty white, and when on the wing a most conspicuous object amidst a crowd of dark-plumaged companions. On the same day, when shooting through some standing beans, I saw a small flock of Redpolls, and amongst them one which was very light-coloured, probably L. linaria. There was a very considerable immigration of these latter at Spurn on the night of October 24th, and a beautiful old

<sup>\*</sup> See 'Zoologist,' 1872, p. 3245.-Ep.

male, obtained by Mr. Clarke and myself, was caught at early morning of the 25th in the boat-house, and fourteen or fifteen more were seen by Mr. Winson in his small garden contiguous. We found them numerous in the locality of Spurn, Easington, and Kilnsea from the 25th to the 27th, in small parties of twenty or thirty, but generally three or four together, on plants of seastarwort, Aster tripolium. Some few of these were beautiful old birds-very mealy, and, besides the blood-red patch on the forehead, had the breast and rump washed with delicate crimsonrose. Out of examples preserved from various small flocks during the last week in October only one was a female, the remainder being males, both mature and immature. The stomachs of several examined were filled with the husked seeds of Daucus carota and Scirpus maritimus. There was a very marked difference in the length and depth of the beak, and this in examples shot from the same flock, indicating probably that the immigration was made up of birds coming from widely separated districts in Scandinavia. At the same time, with the Redpolls, many Siskins appeared in flocks up to twenty, but more generally two or three together, and frequenting much the same localities as the Redpolls,—on the sides of rough country lanes and the river embankments,clinging to the tops of thistles and various umbelliferous plants, on the seeds of which they were feeding. Mealy Redpolls have crossed Heligoland in large numbers during the autumn and up to December 20th, the greater part passing during the last fortnight of October. I have occasionally obtained Redpolls in this district which only differ from our ordinary English bird in their slightly larger size and in having the feathers on the upper surface fringed with grey. I have been considerably puzzled as to whether they were L. linaria or rufescens, and it has only recently occurred to me that they may be examples of the European Redpoll figured and described by Mr. Dresser, in his 'Birds of the Western Palearctic Region,' as the Linota exilipes of Coues—Coues's Redpoll. That flights of Redpolls which are not referable to L. linaria cross the North Sea, I have satisfactory evidence; and as our own Redpoll, L. rufescens, is confined to the British Isles, it is more than probable that in the course of migration L. exilipes occasionally visits us.

The Brambling was first seen on October 3rd, a solitary mature male; and on the 26th Mr. Clarke and I saw a flock

of about two hundred, apparently all males, in a stubble-field near the sea-coast. The stomachs of two examined by us were filled with the husked seeds of the common charlock. A

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A most noticeable feature of the autumn migration was the number of large birds of prey seen in districts along the east coast. Between the last week in September and the end of October I had notice of eight Ospreys and innumerable Buzzards, the Common and Honey Buzzard the most frequent, and the Rough-legged in a very decided minority. The occasions on which I saw myself large birds of prey during the past autumn were far too numerous to mention; the last occasions were on December 19th, when I saw a light-coloured Buzzard sitting on a barley-rick within a short distance of our railway station; and another flew over the house on the morning of January 4th. On September 22nd, wind E., storm No. 9, an immense flight of Common Buzzards passed across Heligoland, thousands passing on, and as many remaining to rest on the sea-cliffs. On the 23rd and 24th there were still a great many passing. the impelling cause to induce this immense number of Common Buzzards, so early in the season, to congregate simultaneously from all parts of Scandinavia and North-Eastern Europe, and migrate in one vast band to the south? And how was the signal for departure communicated from one to the other over vast areas of forest and mountain?

On October 26th, at Heligoland, from 9 p.m. to midnight, a great many Snow Buntings passed overhead; on the 28th and and 29th, rain and hail both days, very great numbers; 30th, a great many; 31st, flights of thousands high overhead; winds easterly, varying to N.W. and S.W. The proportion of old to young birds was one in a hundred. Again, on the 8th and 9th November, thousands and thousands of Snow Buntings and Shore Larks (Otocorys), night and day. Here I saw no Snow Buntings before November 14th, although they may have arrived a day or two previously. From that date to the middle of December they frequented the stubbles in enormous flocks, thousands upon thousands, nearly all young birds, the proportion of old ones being very small. The great attraction which kept them in the neighbourhood was the large quantity of oats which were dashed out in harvest time (from ten to thirty bushels per acre, and in some cases much more) by the high wind on August 26th, from S.W. to W. Immense flights of Snow Buntings passed the Teesmouth from November 23rd to December 17th, at intervals, and notwithstanding the abnormal mildness of the season they were the most conspicuous species in the returns from our north-eastern stations. Early in November immense flocks of Greenfinches, many thousands together, probably the accumulated immigration of days and weeks, with flocks of Tree Sparrows, and some Linnets and Twites, visited these same oat-stubbles, where the smaller grain-eating migrants found an almost inexhaustible supply of food ready for their use. The Greenfinches were, with very few exceptions, young of the year and old females.

Like the Woodcock, the Short-eared Owls came in very irregularly, two or three at a time, through September and October. On November 9th I saw quite a young bird perched on a footbridge across one of the marsh-drains, and got very close before it was sufficiently aroused to flap lazily along the drain-bank, where it soon plumped down amongst the rough grass and reeds. This bird had a good deal of down still adhering to the tips of the feathers, and was certainly much too young to have come any distance.

There was a very general arrival of Hooded Crows along the east coast on October 18th, soon after nightfall probably, but between sunset and dawn. Both on the 17th and 18th they crossed Heligoland in immense numbers; and Mr. Gätke remarked that their migration "differed very markedly from their usual habit in passing overhead [E. to W.] at least twice as high as usual; further by continuing to pass on till later in the afternoon, which accounts for your arrival during night or early morn. As a general rule, C. cornix coming here later than 2 p.m. do not proceed on their migration, but remain here during the night, when they are so stupid that a year or two ago a man killed forty-five with a lantern and stick, almost the whole congregation resting on the plateau of the northern cliff." Heligolanders eat them, so do the fishermen and labourers in North Lincolnshire whenever they have a chance; a fresh "hoodie" put up as a scarecrow is tolerably sure to disappear. There was a very considerable flight over Heligoland on the 8th and 9th of November, and again on the 10th and 11th of December.

Mr. Winson, captain of the Spurn life-boat, picked up a Knot on the 7th November, killed by flying against the single telegraph-

wire; it was in full summer plumage, the back nearly black, and only a little buff on the margins of the feathers, the moult perhaps being retarded by disease. This telegraph-wire along the coast is the death of many immigrants, and on September 4th Mr. Clarke picked up, under the wire near Kilnsea, a fine specimen of the Great Snipe quite warm.

Geese passed over last autumn, as usual, but travelling from S.E. to N.W., which country people and marshmen here aver indicates a mild and open season—a prediction since verified in an unusual degree.

## ORNITHOLOGICAL NOTES FROM REDCAR. By T. H. Nelson.

The annual southward migration of feathered visitors from northern climes commenced last autumn on the north-east coast of Yorkshire about the usual time, although in the case of some species it occurred from a fortnight to a month earlier. The route followed by most of the winter migrants which pass Redcar is from E. and S.E. to N. and N.W., a N.E. wind being most favourable for observation, as bringing the flocks in-shore for shelter. As the prevailing winds during the latter part of summer and the first half of autumn were from E. to N., perhaps a greater number of migrants came under notice than would have been the case if the wind had been off-shore.

A few Godwits and Whimbrels are generally seen early in July, and last year was no exception to the rule, the first bird being observed on the 4th of that month. Ducks began their migration very early; soon after the middle of August a great rush took place, caused, no doubt, by the severe weather which we experienced towards the end of summer. Oystercatchers were more abundant than I have known them to be for some years, as also were Knots and Grey Plovers; but Godwits were very scarce. The majority of these waders only remain with us for a few days en passant, and by the end of October very few are to be seen. The Tees-mouth is being rapidly "played out" as a resort for shore-birds; and no wonder, considering the ceaseless persecution to which they are subjected; whilst the feeding-grounds are year

by year curtailed and encroached upon by the never-ending "river improvement" of the Conservancy Commissioners.

I saw the first Wild Geese on September 23rd; a "grey goose" was shot on Cowpen Marsh on October 4th. Hooded Crows were a day or two before the usual time, October 3rd seeing the first flight.

A fuller account of the annual migration at Redcar will be found in the following notes, taken from my journal, between the beginning of July and the end of October.

About June 30th a Common Skua, L. catarractes, was seen by one of the fishermen while out at sea. On July 1st the same man saw what, from his description of it, I have no doubt was a Sand Grouse; it was on Coatham Sands, and allowed him to approach within ten yards. From the 4th to the 7th, on each day, a few Godwits and Whimbrels passed—the advance guards of the large flocks which we see towards the end of August. On the 12th, at 8.30 p.m., I saw a large flock of Skuas (I think Richardson's), flying W., high overhead. At 7.30 p.m. on the 18th a flock of Whimbrels passed. On the 25th, several flocks of Curlews going W.

On August 1st two friends of mine, shooting on Cowpen and Salthouse Marshes, bagged nine Shovellers, all young birds bred on the place. Nine Herons passed from eastward on the 3rd. On the 6th my friend Mr. E. B. Emerson shot a Wood Sandpiper—an adult bird, but the sex indistinguishable,—on Coatham Marsh. According to the authors of the 'Handbook to the Yorkshire Vertebrate Fauna,' this will be the seventh recorded occurrence of this species in this county. On the 9th, a strong N. gale blowing, the first migrant Oystercatchers seen, a flock of about a dozen passing from the east.

On the 13th August I shot a splendid Red-throated Diver, in full summer plumage; it came from E. and flew over the boat, only to receive its death-warrant. This is an early date on which to meet with this species on our part of the coast, the usual time of its appearance being the latter end of September, although both C. glacialis and C. septentrionalis came southward at least a fortnight or three weeks earlier than usual. On the 15th I saw an immature Richardson's Skua, dark plumaged, out at sea—the first I had seen of the autumn contingent. I saw the first Sanderling of the season on the 16th, at the Tees-mouth, and

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for tion year two or three Turnstones at the same place—all young birds. A few small flocks of ducks passed. On the 17th, between 6 a.m. and noon, Ducks, Curlews, and Godwits passed over in immense flocks; a flock of 150 Scoters was also seen about five miles out at sea, flying landwards.

On August 18th about 400 Oystercatchers, in a flock, passed, the weather on this and the previous day being calm to a slight breeze, but on the 24th a storm threatened from N., and another "rush" of ducks took place; between 6 and 12 a.m. they passed in immense flocks, from 100 to 500 birds in each. I have no doubt but that this early departure of these birds from their northern homes was caused by the severe weather we had towards the end of August; probably it was more severe in the north. On the 17th the first migrant Dunlins passed, and on the 18th I saw the first Knots of the season; four passed over East Scar, coming from eastward.

On August 22nd a red-plumaged Knot and a Bar-tailed Godwit, in faded red plumage, were shot at the Tees-mouth. Five Richardson's Skuas were seen and two shot, one an adult white-breasted bird, the other immature, dark plumaged. Several Gannets and Richardson's Skuas were seen at sea. On the 23rd I saw three Lesser Terns at the Tees-mouth. These pretty little Terns are now very scarce with us, seldom more than one small flock being seen in the course of each year. On the 25th Common Terns going south; I saw about twenty large flocks heading against a fresh S.E. wind, most probably on their departure to warmer climes. On the 26th a few Dunlins and Sanderlings passed from eastward. A Woodcock was reported to have flown in from the sea at 4 p.m.; wind fresh from westward. On the 27th, a strong N. gale blowing, saw a Shieldrake pass East Scar.

On September 1st, N. gale, several flocks of Oystercatchers, Knots, Ducks, and a few Whimbrels passed; a flight of immature Herring and Lesser Black-backed Gulls also passed. On the 2nd I saw two adult Gannets washed up on the shore; the long-continued severe weather possibly had been the cause of their death. On the 3rd two Ruffs, immature birds, were shot from a flock of seven seen, on Cowpen Marsh, by Mr. W. Chilton, also a Spotted Crake and a Blue-winged Teal, Q. discors; the last named Mr. Chilton kindly presented to me, and I enclose a coloured

sketch, with dimensions. Mussell, the taxidermist, who preserved it, declared it to be a young bird.\*

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On September 6th an immature Reeve was shot at the Teesmouth; it was in company with a flock of seven Knots. On the 7th, weather fine and calm, I saw out at sea a Great Northern and a Red-throated Diver flying south. On the 6th, 7th and 8th Knots were very plentiful at the Tees-mouth, but Godwits still scarce. On the 8th, calm and dull, saw a Great Northern Diver going south. On the 9th an adult Curlew Sandpiper was shot at the Tees-mouth, and I saw it the day after. It was in very good plumage, and is the only mature example of the species which I have known here. On the 10th, a N.E. breeze blowing and freshening through the day, an immature Curlew Sandpiper was shot between Redcar and Marske; four were killed at the Teesmouth, and I saw four at the same place on the 13th. Three Great Northern Divers, six Richardson's Skuas, and a Hawk were seen going south. A flock of Grey Plovers came from the east.

On September 11th, a strong wind blowing from N.E., several flocks of Godwits, Whimbrels, Golden Plovers, and Knots passed. On the 12th, wind still strong from N.E., a migrant Heron sailed past about 9 a.m.; Dunlins were passing all the morning; a few Curlews, Godwits, and Grey Plovers also passed. mature Curlew Sandpipers and a female Kestrel (migrant) were shot at the Tees-mouth. Large numbers of Grey Plovers were at the Tees-mouth on the 13th; they had been coming up for the past few days. I saw two adult Gannets washed up by the tide. On the 14th, very light E. wind, I saw three Sandwich Terns, a Great Northern and a Red-throated Diver flying south. On the 15th a great many Skuas were seen by the fishermen on the fishing-grounds, five to ten miles out; they were chiefly L. parasiticus, but there were several of L. pomatorhinus and L. longicaudus seen at the same time. Gannets were plentiful in the offing, and several Red-throated Divers were observed. Nine Red-throated and eight Great Northern Divers passed Redcar, going south. A Spotted Redshank, adult, was shot at the Teesmouth; a male Short-eared Owl was killed in the vicinity of

<sup>\*</sup> This is not the first time this species has been met with in the British Isles. See 'Zoologist,' 1852, p. 3472; 'Naturalist,' vol. viii., p. 168; and Gray's 'Birds of the West of Scotland,' p. 373.—Ed.

Redcar; and a Great Snipe, a young bird, was shot in a clover-field near Stokesley.

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On the 17th September a Short-eared Owl was seen by one of the fishermen at sea, and a Kestrel was seen at the Tees Breakwater. On the 19th a Short-eared Owl passed one of the fishingcobles at sea, and almost alighted on the mast. I saw a Kestrel at the Tees-mouth on the 20th. On the 21st Dunlins were plentiful at Tees, evidently new arrivals, for they were in very poor condition and easily approached. An easterly gale, with heavy rain, on the 22nd, brought a flight of migrants. Between 8 a.m. and 3 p.m. several flocks of ducks passed, also a few Oystercatchers and Godwits, and Knots in large numbers. Herring and Lesser Black-backed Gulls, immature birds chiefly, passed during most of the day. A few small parties of Blackbirds and Larks crossed from seaward. Three Sandwich Terns flew south in the morning, and a large flock in the afternoon. Two Short-eared Owls came in from seaward, at 5.30 p.m., and dropped on the sand-hills; and numbers of Redstarts were observed in the gardens, about the town, and on the Breakwater at the Teesmouth: one flew into a fisherman's cottage and was captured alive. On the 23rd, wind strong from S.E., with drizzling rain, I saw ten Geese pass overhead, going N.W., and one at the Tees, going S.W.; fifteen others were seen at the Tees on the same day, and three Short-eared Owls were seen to come in from seaward. Redstarts, Chiffchaffs, Black-headed Buntings and Lesser Whitethroats were fairly abundant in the gardens behind the sand-hills.

On September 24th I saw twenty Geese at the Tees, flying S.W.; they were apparently very tired, but kept at a good height, well out of shot. On the 26th, wind strong from W., several flocks of Larks and one flock of Peewits crossed; and I saw eight Shieldrakes pass from E., also a hawk and a Short-eared Owl. On the 28th seven Geese came from eastward and flew behind the town on to the neighbouring marshes. On the 29th a good many Richardson's, Pomatorhine, and a few Buffon's Skuas were seen on the fishing-grounds; four Pomatorhines flew past Salt Scar to the west; one bird was of the black mature variety. On the 30th I saw a Short-eared Owl sitting on Salt Scar, evidently tired with its long journey; on being disturbed it flew slowly away westward.

On the 1st October about twenty Richardson's Skuas were flying about, chasing the Terns and Gulls, close to shore. The morning was thick and foggy, and they several times came half-way up the sands in pursuit of their prey. I afterwards saw five or six out at sea; all were immature birds, some dark and others of the brown variety. On the 2nd a Long-eared Owl was captured alive behind the town. This species is much scarcer with us than its Short-eared relative, only one or two examples occurring in the course of the season. On the 3rd, wind light from E., the first flight of Grey Crows was seen, about a dozen coming in from eastward in the early morning. Two Short-eared Owls crossed over; a Kestrel was seen at the Breakwater. Gannets and Skuas were still plentiful on the fishing-grounds; the Skuas were chiefly of Richardson's species, but a few Pomatorhine and one or two Buffon's were seen.

A Short-eared Owl was shot on the sand-hills on the 4th October, and another was shot the next day; it was mobbed by Starlings, and flew close by the shooter on the sand-hills. A Woodcock, the first of the season, was seen and shot on the sand-hills. A small flight of Golden-crested Wrens appeared in the early morning, and took refuge in the thick hedges bordering the fishermen's gardens. About a dozen Hooded Crows passed to the W., and an immature Buffon's Skua was shot at the Teesmouth; this bird is now in the possession of my friend Mr. J. B. Wood, of Middleton, Manchester. On the 6th, a strong N.E. wind with showers, a large flight of Hooded Crows came over; one old fisherman declared he had never seen so many. A Richardson's Skua, a dark bird, in the second year's plumage, was shot at the Tees-mouth. On the 7th twenty Hooded Crows passed; two Goosanders crossed East Scar from eastward. I saw a Sandwich Tern (very late!) at the Tees-mouth, and two Robins (migrants) on the Breakwater.

Up to the 14th October a flock of some twenty or thirty Common Terns frequented the shore to the east of Redcar Pier. On this day the memorable storm from the N.W. took place; it blew a perfect hurricane here, but not from the right direction, according to a wildfowler's point of view. If the gale had been from N.E. I have no doubt that the Pomatorhine Skuas would have appeared again in great force, as they did exactly two years ago (Oct. 14, 1879); as it was a good many came down wind from

northward and passed over the east of the town inland: they flew high and at a tremendous pace, so that in all probability they escaped destruction—at all events, I did not hear of any having been shot here. Several "Petrels of the Storm" were seen, and three or four captured; I bought one from a fisherman, and kept it alive for some time; it became quite tame, and nestled under my coat for shelter and to avoid the glare of the light. What interesting little creatures these are, the least of the web-footed tribe! I was particularly struck with the elegant and graceful manner in which my little captive glided across the room on uplifted pinions, seemingly "as light as air." During the height of the gale a continuous flight of ducks passed in small flocks.

On the 15th October, the wind still blowing hard from the N., I was at the Tees-mouth with Mr. Emerson; in returning home he shot a pair of Grey Phalaropes, right and left; they were mature birds, in almost full plumage, only two or three grey feathers showing on the back; the red on the necks faded, but otherwise they were in good feather. On the same day we saw another Phalarope on the sands east of Redcar. On the 19th several Fieldfares were heard "chuckling" as the fishermen were going out to sea, and a Woodcock was shot in a field behind the sand-hills. On the 20th a Great Grey Shrike was shot about three miles from Redcar, and the last Tern was seen by Mr. T. B. Wood near the Tees-mouth. On the 22nd, stormy, strong E.S.E. gale, twelve Goosanders (or "Sawbills," as they are termed here) flew over East Scar, nine going west, the others flying east. Two Woodcocks and a Short-eared Owl were seen. Great Black-backed Gulls were unusually plentiful during the previous few days, coming from eastward; forty or fifty passed on the 23rd.

On October 24th, the wind having been easterly for several days, a flight of small birds appeared. While I was at breakfast five Lesser Redpolls alighted on the ground in front of the window, facing the sea. I saw another small flock at the Breakwater, and several Gold-crests, Thrushes, Blackbirds, Robins, Yellow-hammers, Hooded Crows, a Ring Ouzel (a young bird, which was shot), and a small red-tailed bird, probably a Redstart. A Short-eared Owl was seen, and I flushed a Woodcock among the bents. An immature Glaucous Gull was shot at the Breakwater, and was preserved for my collection.

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Sno No On October 25th, wind still easterly, a large flight of Hooded Crows came over; about two hundred were seen passing Redcar from 8 a.m. to noon, and a flock of about sixty was seen at the Breakwater at 8 a.m. An Owl—which, from the description given me, could have been nothing but a Snowy Owl—came from seaward, passed a knot of fishermen standing near Redcar Pier, and flew over the town. Two Woodcocks were seen. I saw two Snow Buntings, the first of the season, at the Breakwater; two Redwings were also seen at the same place. A Hoopoe was reported to have been seen near Redcar, in the same field where one was shot last year. Of course half the gunners in the neighbourhood were on the look out for it, but I believe it managed to escape with its life.

On October 26th, from 6 a.m. to noon, a large flight of Hooded Crows passed. A Short-eared Owl was shot and a Jack Snipe caught asleep on Coatham Sands early in the morning; wind E.N.E. A few Hooded Crows passed each morning from the 27th to the 31st. On the 28th an adult Gannet was washed ashore; many Guillemots at sea flying N.W.; I saw three Velvet Scoters in the Tees, in company with a large flock of Common Scoters. On the 29th, stormy, N.E. gale, hail showers, two Woodcocks flew in among the boats. On the 30th an adult Gannet was picked up dead on the beach. On the 31st Guillemots at sea flying east. Six Great Northern Divers flying east. An immature Turnstone was shot east of Redear by my friend Mr. Wood. This is an exceptionally late date on which to find this species with us.

On November 1st I saw a large flock of about fifty Snow Buntings, evidently fresh arrivals, near the Tees-mouth. On the 2nd, wind light S.E., a continuous flight of Peewits. On the 4th, between 9 a.m. and 3 p.m., an immense flight of Peewits, in large flocks of from fifty to two hundred; many of them settled in the fields behind the sand-hills, in company with Golden Plover. At 7 a.m. an immense flight of Starlings was observed at the Breakwater; the numbers were roughly estimated at a million, darkening the air and making a noise like thunder; they came from eastward and flew west. On the 7th a few Hooded Crows and Snow Buntings came from seaward. On the 8th I saw a Great Northern and three Red-throated Divers at sea, going east.

## NOTES AND OBSERVATIONS ON BRITISH STALK-EYED CRUSTACEA.

By John T. CARRINGTON, F.L.S., AND EDWARD LOVETT.

(Continued from p. 15.)

#### Polybius Henslowii, Leach.

This somewhat peculiar species is the only one of its genus hitherto known to inhabit the British seas.

The carapace is nearly circular and very flat, the regions being, however, well marked. The anterior portion is rather regularly serrated, and there are three angular teeth between the orbits. The colour of the carapace is dark salmon colour, and displays an iridescence which is not lost at death. The antennæ are small, with the basal joint rounded; the eyes are fixed on short peduncles, which they exceed in size. The anterior pair of legs are regular in size, the wrist sharply toothed, and the forceps but slightly serrated; the second, third and fourth pairs of legs are slightly fringed with setæ at the margins, whilst the development of the terminal joint of these appendages into an elongated blade, - thus differing from all the other species of the Brachyura,—will at once settle any doubts as to its identity. The posterior pair have the last two joints developed for swimming purposes, the terminal joint in this leg becoming decidedly rounded in shape, and not pointed, as is the case with the other limbs mentioned. One can thus see at a glance the origin of the power which enables the animal to swim so freely in deep water in pursuit of its prey. The abdominal somites are five in number in the male, and seven in the female.

Polybius Henslowii appears to be undoubtedly a southern species. Prof. M. Edwards gives only one locality for it, namely, the Channel, but he adds that it appears to keep a considerable distance from the shore. Bell speaks of a specimen in the Banksian collection of the Linnean Society, which was obtained from the coast of Spain; he also records its occurrence on the coasts of Dorsetshire and Devonshire, as well as from Cornwall and Worthing. We have obtained it from herring-nets at Bournemouth, through the kindness of Mr. E. B. Kemp-Welch; also from the deep part of the channel off the Sussex coast by

dredging: thus bearing out the statement made by Mr. Couch, and recorded by Prof. Bell, as to its swimming and deep-sea habits. A number were obtained from Jersey in the autumn of 1880 by a correspondent, through the bursting of a sluice or drain near the shore, the large quantity of fresh water, with its impurities, evidently overwhelming and killing those that were probably seeking shelter in the sand in the neighbourhood. An enormous number of this supposed rare crab were washed ashore at Shoreham after the great storm of January 24th, 1881; and the fishermen of St. Ives, Cornwall, to whom it is known as the "Nipper," state that large quantities, described as "tons in weight," were washed ashore there in 1878 or 1879. On the Devonshire coast it is often taken in the herring and pilchard nets.

Though considerable numbers have passed through our hands, we have not obtained a specimen with ova, and therefore think it probable that the females retire to deep water during the spawning season.

#### Genus Portunus, Fabr.

This genus embraces more species than any other of the Brachyura, all of which species are popularly known as swimming crabs, from the blade-like development of the last joint of the fifth pair of legs, somewhat similar to that already referred to in Polybius Henslowii. The carapace of this genus is broader than long, or rather it is true crab shape. It is denticulated on the anterior margins; that portion between the orbits varying considerably in the different species, as also does the colour and many other details to which we shall refer specifically. The antennæ are somewhat longer than those of the preceding genus, and the eyes are fixed on short peduncles. The anterior pair of legs are generally nearly equal, ridged longitudinally, and more or less knotted and notched; the wrist is armed with spines, and the forceps are slightly serrated. The abdominal segments resemble those of Polybius Henslowii, in being fivejointed in the male, and seven-jointed in the female. The general habits of the genus are remarkable; some species existing in enormous numbers in limited areas, as if attracted by some particular form of food, which they possibly do good service as scavengers in removing; while others swim about on isolated foraging expeditions, even attacking fish in open water.

#### Portunus puber, Leach.

This is by far the largest, most handsome, and, as an article of food, the most useful species of this genus. Its chief distinctive characters, besides its size, are its colour and covering of densely set hairs, its markings, and the anterior denticulation of its carapace. As regards its colour, this appears to vary slightly in different localities, but down among the rock-pools of the luxuriant Jersey shores it may perhaps be seen in its best conditions.

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The hairy covering gives it a beautiful warm reddish-brown tint, which throws up in rich contrast the delicate cream-coloured markings on the smooth portions of the limbs, relieved here and there by tints of bright, yet soft, blue. Leach's figure, in his 'Malacostraca Britannia,' is not at all exaggerated. Its markings also are more decided than those of the other species. As regards the remaining distinctive feature, that portion of the margin of the carapace between the orbits is divided into two semicircular, very finely serrated portions, not resembling in any degree that part of any other of the *Brachyura*.

The ova of *Portunus puber* are remarkably minute, and are of a dull, dirty black appearance when mature. They exist in countless numbers under the broad abdominal segments of the female, during the early summer months, and no doubt constitute the food, when hatched, of many inhabitants of the sea.

This crab is much eaten as an article of luxury, and may be seen in large heaps on the stalls in the markets at St. Heliers, Jersey, and St. Peter's, Guernsey, where they are tied up alive in small bundles. They are known there by the name of "Crabbe gregaise"; and on the south coast of England they are called "Fiddlers," or "Velvet Fiddlers," also "Lady Crabs"; in France, "Crabbe enragée."

This species attains its greatest size on our southern shores, where it is also most common. It is extremely abundant about the Channel Islands, as also on the Dorset, Devon, and Cornish coasts. It is stated to be common on the Irish shores, Galway, Belfast, and Dublin being given as localities. Besides these it has been recorded from Moray Firth and the Hebrides, so that its distribution is evidently of great extent.

#### Portunus depurator, Leach.

This species possesses several specific characteristics by which it may at once be determined. Its carapace is much smaller than that of *P. puber*, and, instead of being velvety and dark in colour, is rough, granulated, and of a pale brick-red brown. The denticulations on the anterior portion are very defined, and the space between the orbits is occupied by three sharp teeth, having a smaller one on either side.

The anterior pair of legs have the forceps much more grooved and carinated than those of the former species, the spines on the wrist being also much more formidable; the remaining legs retain the generic character, and differ but little in colour from that of the carapace.

This species is with ova during the summer months. The eggs are carried in a large mass beneath the abdominal segments of the female, and are of a dirty brown colour and very small.

Portunus depurator appears to be an abundant species, and is recorded by Bell as having been obtained at Embleton Bay, in deep water, attached to the nets of the fishermen; from Strangford Lough and on the Connaught coast, by Mr. Thompson; also from Studland Bay and Hastings. We have obtained it in numbers from the estuary of the Thames; Devon, Dorset, and Sussex coasts. It is also reported from St. Andrews (occasional); Galway, Belfast, and Dublin; Cheshire coast (common); Milford Haven; coasts of Yorkshire and Durham; Moray Firth; Hebrides; and both coasts of Cornwall; in the latter county it is called the "Harbour" or "Mary Crab."

It is curious that those we obtained from Weymouth were generally infested with a growth of *Membranipora pilosa*, whilst others that were obtained from the neighbourhood of estuaries were invariably clean, and without parasitic growth.

#### Portunus marmoreus, Leach.

In this species the carapace is more minutely granulate than that of *P. depurator*. The denticulations on the anterior margin are by no means so defined as the following species, and the space between the orbits is occupied by three teeth, which are nearly as acute, but not so much projected. From its near ally, *P. holsatus*, it differs in its generally smaller size; also in its more

uniform colour. The swimming blade in P. marmoreus is much more elongated and pointed than either P. depurator or P. holsatus.

The colour of the carapace is uniformly of a pale or yellowish brown, marbled nearly over the whole surface with a tracing of darker brown. A small patch, which is devoid of markings, appears on either side immediately below the last spine of the denticulation of the lateral anterior margin.

This species is so closely allied to *Portunus holsatus* that Bell remarks he is almost imperatively forced to consider them as varieties of one species. Our experience, after carefully examining living specimens, is that the points of difference between this and *P. holsatus* are such as to establish its identity as a species.

After long and careful collecting expeditions, extending over many months, in the Channel Islands and the whole south coast of England, Mr. Carrington's assistant, Mr. E. Matthews, only met with this species in single examples near Guernsey and the Scilly Islands, but near Falmouth he found about a dozen examples. At the latter place it was so extremely local in its habitat that it was only obtained by repeated dredging; in fact, the dredge passed quite one hundred times over the one small bank covered with Zostera where the specimens occurred; and although the immediate neighbourhood was even more carefully worked, none were obtained elsewhere. Professor Bell notes that he obtained nearly four hundred, of which three-fourths were females, at Sandgate, in May, 1844, in two casts of the dredge. It is difficult to doubt so close an observer as Bell, but knowing that P. holsatus occurs on that coast in great profusion, we venture to think that a mistake in the species recorded must have occurred. P. marmoreus has been recorded after storms at St. Andrews; also from Moray Frith and Roundstone, Connemara, Galway.

### Portunus holsatus, Fabr.

This species, which, as we have already stated, seems to have caused a considerable amount of difficulty in consequence of its strong resemblance to *P. marmoreus*, is, nevertheless, decidedly distinct; this can be observed when several of each species are seen together.

The general appearance of the carapace is, that it is more rounded and much smoother than that of the former species, whilst the teeth occupying the space between the orbits are sharply pointed. The forceps are armed with two serrated ridges, and the spine on the wrist is of a different shape from that of *P. marmoreus*, not being so acute. The swimming blades are also much more rounded in form than those of the last species.

Professor Bell says that—"The appearance of this crab is extremely rare on our coasts"; though he cites several instances of its by no means isolated occurrence. It is, however, no doubt local, but existing in enormous quantities where the surrounding circumstances are favourable to its development; for instance, in August, 1880, we obtained a large and fine series from a sandbank near the Nore light-ship, in the estuary of the Thames, by means of a trawl, although none were to be found on adjacent spots possessing apparently equal advantages. Portunus holsatus has also been recorded from the Firth of Forth, Cornwall, and the Bays of Belfast and Dublin; St. Andrews (not uncommon); Shetland (frequent); Berwick (specimens small); Hebrides; Sunderland coast, "plentiful in rock-pools."

#### Portunus corrugatus, Leach.

This remarkably well-defined species may be at once determined by the corrugated formation of the carapace, from which it derives its name. This appearance is caused by very finely serrated ridges, which cover the carapace transversely, and is also developed upon the limbs of the animal. The anterior portion of the carapace is armed with five teeth on each side of the orbits, and the space between the orbits is occupied by three blunted prominences scarcely attaining to the dignity of teeth. The carapace is narrowed abruptly towards the posterior margin.

The anterior pair of legs are frequently unequal in size, but more uniform in shape than those of the other members of the genus. The spine on the wrist is long and sharp, and the chelæ evenly serrated. The swimming blade of the posterior legs in this species is small and narrowed towards the apex; the terminal joints of the other legs are acutely pointed.

The colour is of a rich reddish brown, often marked with patches of darker red or brown. According to Bell, *Portunus corrugatus* "must be considered as one of the rarer species of the genus," and his records of its capture certainly tend to prove that it was by no means commonly known at that period. The localities named by him are the Island of Skye, Plymouth Sound,

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Cornish coast, Berwick Bay, and Dublin coast. We have obtained it from Mevagissey, where its colouring was of the normal tint, a dark brown; from off the Sussex coast, where specimens were almost invariably of a paler or duller appearance; and also from the crab-pots off La Rocque, Jersey, where were obtained specimens exhibiting the richest and brightest tints, often presenting some interesting and beautiful varieties. Thus may be seen, to a certain extent, the effect of a more or less genial locality on the colouring and development of certain animals. This species has also been recorded from Galway, Belfast, and Dublin: South Devon (rare); and Cornwall (scarce).

#### Portunus pusillus, Leach.

This is one of the smallest species of the genus, the carapace rarely attaining to an inch in breadth.

The upper part of the carapace is raised, the anterior margin toothed, the space between the orbits being armed with a pyramid of three teeth, the centre one projecting. The first pair of legs are armed with stout forceps, and the wrist with sharp teeth, like others of the genus. The remaining legs are slender, with several transverse bars of dark colour, and the swimming blades are oval in form.

The colour of this species varies considerably from very pale yellow, or even white, to various shades, through red to brown. In some examples the colour is quite uniform, others are minutely speckled on the whole of the carapace with darker colour, while some specimens have patches and stripes of Venetian red tint occupying the surface of the cephalo-thoracic region.

This crab is recorded from St. Andrews (occasionally in deep water); Shetland (frequent); Hebrides; Dublin, Belfast, and Galway: Milford Haven (dredged; with ova April, 1881); Cornwall (common); Devon (dredged off Otterton Head in twenty fathoms). A fine series was obtained by us from off the Sussex coast in deep sea, which were brightest in colour and most variable. Larger and darker specimens were dredged from about thirty fathoms off Brixham and the Devon coast generally.

### Portunus longipes, Risso.

This is decidedly the most remarkable species of this genus, being, as Bell remarks, a truly Mediterranean form. Its general

shape is rectangular at its posterior margins, and slightly curved on its anterior margin which is armed with curved teeth, the outer ones being long. The part between the orbits is occupied by four slight lobes.

The anterior pair of legs are armed with unequal forceps, the chelæ being hooked. The wrist has a stout and somewhat curved spine. The remaining legs are attenuated—hence its specific name. This species differs from all others in the genus in the great length of the external antennæ.

The colour of the carapace is reddish brown; one in Mr. Carrington's collection being of a very pale tint, with regular distinct blotches of Venetian red on the surface of the cephalothoracic region.

Bell has recorded its occurrence on the Cornish coast, Plymouth, and Swansea. We obtained it from Jersey in November, 1880, and also from the English Channel, off the Sussex coast in March, 1881. It has further been recorded from Falmouth and Penzance. It is evidently a deep-water species, and is undoubtedly the rarest British example of this genus.

#### Portunus carcinoides, Kinahan.

On the 12th December, 1856, before a meeting of the Dublin Natural History Society, the late Dr. J. R. Kinahan read a paper upon certain decapodous Crustacea occurring at Valentia Island, Co. Kerry, which is printed in the 'Natural History Review, vol. iv. (1857). In a foot-note, on p. 66, he describes and names Portunus carcinoides as follows:-" Along with the above species (P. arcuatus), three specimens of a Portunus occurred, which, though neighbouring to P. corrugatus, seem to belong to some other species. I have, therefore, ventured to describe it provisionally, under the name of P. carcinoides (from its resemblance to Carcinus mænas), as follows:-Carapace smooth, without raised ridges, regions marked out by rounded prominences only, sparsely hirsute. Front three-lobed, middle lobe largest, edges of lobes entire. Antero-lateral margin of carapace five-toothed. First pair of legs equal, surface nearly smooth, hirsute; two flattened, triangular teeth at anterior superior angles of wrist; hand with two well-marked carinæ on the upper sides, the inner terminating in a very minute, obtuse tubercle. Upper edges of second, third, and fourth pair of legs very sparsely hirsute;

fourth joint broadly keeled above; fifth and sixth acutely keeled; sixth joint slender, styliform; terminal joint of posterior pair of legs narrowly lanceolate, with a raised central line, hairy on the edges. The specimens obtained were all young. I have therefore preferred inserting the species in a note; but it is probable it has been passed over as either P. arcuatus or P. corrugatus. It might also be easily mistaken for the young of C. mænas. It occurred in the rock-pools and also under stones on Ringlass Point."

In the same volume, on plate ix., fig. 3, is represented a life-sized immature specimen of *Portunus carcinoides*. Fig. 3a on the same plate is a drawing of the carapace twice enlarged. On page 161, Dr. Kinahan again says—"P. carcinoides is a good species; it comes very close, however, to Otto's P. infractus, which is included by Bell among the synonyms of P. longipes, Risso, from which the trilobed front and length of legs would separate my specimen."

We have not had an opportunity of examining Dr. Kinahan's type, and are therefore unable to express an opinion on *Portunus carcinoides*.

#### Portunus arcuatus, Leach.

The species may be readily distinguished from the rest of the *Portunidæ*. The carapace is serrated as usual on the lateral anterior margins; the space between the orbits is not armed with teeth, but the outer edge is quite smooth and slightly arched. Its colour is of a sombre brown, but specimens occur of a reddish brown and also of a dark greenish tint.

The anterior pair of legs are armed with very stout and compactly shaped forceps, evidently possessing considerable power. The remaining pairs of legs do not present any striking feature; the last pair, however, have the swimming blades but slightly developed.

This species is not nearly so common as most of the representatives of the genus, and has been recorded from Galway (very common); Belfast; Milford Haven; and coast of Devon. Bell has also recorded its capture at Poole Harbour and the Bays of Swanage and Studland; Bognor; Hastings; and the Welsh coast. We have obtained it from the Channel Islands; Falmouth (frequent); from the Thames estuary, on sandbanks near the Nore lightship; and also from the Sussex coast. Several of the

specimens from the Thames estuary bear examples of acorn barnacles attached to the carapace, and even on the wrist and arm of the anterior limb. This is quite an unusual occurrence in such active species of crabs as constitute the genus *Portunus*.

#### Portunus tuberculatus, Roux.

In the British Association Report, 1861 (1862), the Rev. Alfred Merle Norman described as new to the British fauna, *P. pustulatus* (Norman, n. sp.). The specimens were taken from the deep sea, off the Shetland Isles, in 1861.

In a further report on the marine fauna of those isles (Brit. Assoc. Rept., 1868, p. 263), Mr. Norman corrects his nomenclature, and assigns the name *Portunus tuberculatus* (Roux. Crust. de la Mediterranée, pl. xxxii., figs. 1—5). He further says—"This fine addition to the British fauna was first procured by me in 1861, and has been taken every year since. It is the most abundant of the genus in the Shetland seas, living in 80 to 120 fathoms.

Portunus tuberculatus is distinguished by its tubercular pustulose carapace, by the acuteness of the latero-anterior teeth, and the great size of the posterior tooth, which is double the size of the preceding ones; and by the last legs having the swimming blades furnished with a raised median line."

We are not aware that this species has been found in any other locality than that mentioned by Mr. Norman.

(To be continued.)

#### OCCASIONAL NOTES.

CHANGE OF COLOUR IN THE IRISH HARE.—I have for several years watched the Irish Hares at Ravensdale Park [on the borders of Armagh and Louth], and on the adjoining heath-covered hills, and I find that there is a very decided change of colour from the summer to the winter garb every year, and that the white prevails more in hard than in mild winters. This fact strengthens the doctrine which identifies the Irish Hare with the Scotch Blue Hare, the Lepus variabilis of Bell's 'British Quadrupeds.' It is observable that the change is slow in its progress, not reaching its maximum until January, sometimes rather late in that month, and that it never affects the whole of the back. The operating cause—namely, temperature—

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being much less active in Ireland than in the Scotch Highlands, it would be interesting to learn what has been the experience of others on this point; e.g., whether the Scotch Hares turn white more completely and earlier in the north than in the south, on the high hills than on the plains. It does not seem probable that the British Islands should possess three species of Hare, one of them peculiar to one of the Islands.— CLERMONT.

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Marten in Cumberland.—Early in November last 1 received from Mr. Benson, M.F.H., a fine Marten for preservation, which had just been killed by his hounds. On November 22nd he wrote me:—"The Mart I sent you was killed on the 10th, when out fox-hunting on Carlinot, one of the high fells between Loweswater and Ennerdale. The hounds took a drag to a hole in a rock; the huntsman put in a long stick; as soon as he touched the Mart it ran out and jumped into the mouth of a hound standing near. They are getting scarce; I think I have not killed more than six during the last seventeen years I have had hounds." Another Mart was killed and eaten by the hounds a fortnight afterwards, and since then a third has been seen at the same place. One was seen at the head of Borrowdale in the middle of January last; so you will see there is a fair stock left.—George Mawson (Cockermouth).

[We are glad to hear from another correspondent that the Marten is to be found also in other parts of the same county, where we trust it may long hold its own.—ED.]

WILD ANIMALS PAID FOR BY CHURCHWARDENS OF CROSTHWAITE, CUMBERLAND .- The following short list of expenses incurred by Churchwardens about the middle of last century, for wild animals in Cumberland may be worth inserting in your journal:-1750: To Thos. Birkett for an old Fox, 3s. 4d.; to Jas. Bowe's man for one old Eagle, 1s.; to Jas. Bowe for two young Eagles, 1s. 1752: to Wm. Ware for one old Eagle, 2s.; to Jas. Gateskel for two young Eagles, 2s. 1753: to St. John's people for twenty-one young Ravens, 3s. 6d. 1762: for two Eagles and one Fox, 1763; for Foxes and Eagles, £1 6s. 6d. 1765: for Foxes, Eagles, and Ravens, £1 4s. 8d. This is the last entry where the Eagle is named; but the late Mr. Jonathan Otley, who lived to be above ninety, and has been dead twenty-five years, used to say that they nested in Cumberland up to 1791. The Foxes named were of what we used to call the "greyhound breed;" they had much longer legs than the present race, and with no black upon them; the face was also much longer-in fact, it was larger in every way than the black-footed Irish one. It is now quite extinct in this district, and has been for many years past. I knew the animal well. The Raven, I am glad to say, is still to be seen in the county.-W. KINSEY DOVER (Myrtle Grove, Keswick).

DIPPER BREEDING IN MIDDLESEX.—Having heard a report some time since—which much surprised me—that a Dipper's nest had been taken at Pinner, near Harrow, I made enquiries into the subject, which resulted in my receiving a kind note from Mr. Lionel Fisher, of Harrow, who states the matter thus:—"In the beginning of May, 1876, I got from the bird-catcher here three eggs of the Dipper, which were taken from Pinner brook. The nest was afterwards shown me; it was in shape like a very large Wren's nest, made chiefly of moss, and built in a cavity in a large block of stone and earth standing in the middle of the brook. There was another nest taken from the same place the next year (1877), but I cannot trace the eggs."—R. H. MITFORD (Weston Lodge, Hampstead).

[Instances of the Dipper nesting in the Eastern and South-Eastern Counties of England occur so rarely that we can only call to mind one besides that above mentioned. This was in Hampshire, in 1874, when the circumstance was recorded by Col. H. S. Aslett in 'The Field' of 4th July, 1874. In the adjoining county of Dorset the Dipper breeds occasionally, and farther west in Devon and Cornwall it breeds regularly. Doubtless the explanation of this is, that in the west and north we have mountainstreams with pebbly bottoms and rocky sides well suited to its habits, while in the east and south-east the deeper and thicker waters with muddy banks afford it neither good feeding-ground nor convenient nesting-places. Its occurrence in Middlesex during the breeding-season is a most unexpected event; although as an occasional and passing visitant at other seasons it has occurred two or three times in this county.—Ed.]

RUSTY GRACKLE AND PALLAS'S GREY SHRIKE IN WALES. - At a meeting of the Zoological Society held on the 13th of December last, I exhibited a specimen of the Rusty Grackle, Scolecophagus ferrugineus, which was shot on the 4th of October last by a workman engaged as a wheelwright. It was killed within a mile of Cardiff, on the grassy flats between the sea and the mountains which are known there as "moors," and was brought, a few hours afterwards, to Mr. Robert Drane, by the man who shot it, and who was in the habit of bringing to that gentleman any rare bird that he happened to meet with. It was shot on the wing, and the plumage was in such a perfect condition that the idea of its having escaped from a cage seems untenable. Mr. Drane has known the man some time as an intelligent, though uninformed, workman, fond of birds, and believes perfectly in his bona fides. This species has never before been recorded as British. It appears to breed in the arctic regions of the American continent up to the limit of forest-growth from Labrador to Alaska. The example obtained at Cardiff appears to be an adult male in autumn plumage. I also exhibited a specimen of Pallas's Great Grey Shrike, Lanius major, which was shot in April of last year by a

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gamekeeper, twenty miles west of Cardiff, and sent in the flesh to a bird-preserver in that town, who showed it to Mr. Drane before skinning it, and in whose possession it now is. This species breeds from North Scandinavia eastwards throughout Siberia, but has not been recorded before from the British Islands.—Henry Seebohm (6, Tenterden Street, W.).

THE ETYMOLOGY OF "WIGEON." - Since no dictionary whatever ventures on an authoritative derivation of this word, or even offers a reason for its being spelt either with or without a d, it seems worth while to record what I believe to be its true origin. Etymologists are agreed that "Pigeon" comes, through the French, from the Latin word pipio. In exactly the same way "Wigeon" comes from vipio. The only recognised classical author who uses this word vipio is Pliny; he says (Hist. Nat. x. 69), "In the Balearic Isles, the Buzzard, a kind of hawk, is held as a delicacy for the table; so, too, are vipiones, as they call some small Crane." This identification of the bird need not trouble us, for pipio, whence "Pigeon" is undoubtedly derived, merely means "a young chirping bird, a squab" not any particular species originally, and the old French names, "Vingeon" and "Vigeon," as well as the modern French "Gingeon," seem applicable to more than one kind of wild duck. Professor Skeat has shown, in answer to my note on the subject in a recent number of 'Notes and Queries,' that the spelling "Wigion" occurred as early as 1570, and that the insertion of the d in the word has no more etymological significance than has the same in judge, from the French juge. Hence there can be no doubt if we spell "Pigeon" without a d, we must spell "Wigeon" by the same analogy, and "Widgeon" must henceforth be regarded as a violation of established laws. More than two centuries ago Ménage put forth the present derivation, though it has escaped recognition. I found the suggestion in Salerne's interesting French version of Ray's 'Synopsis Avium,' published in Paris in 1767 (p. 424); he, however, prefers to derive the name from the impossible source of the note made by the bird during flight.—HENRY T. WHARTON (39, St. George's Road, Kilburn).

[Rolland, in his 'Faune Populaire de la France' (vol. ii., p. 397), states, on the authority of Millet, 'Faune de Maine et Loire,' that in Anjou the male of this species is called *Digeon*, the female *Digeonne*.—Ed.]

THE BREEDING HAUNTS OF THE GANNET IN IRELAND.—When at Glengarriff, in 1878, I was told that Gannets bred on the Bull Rock, at the entrance of Bantry Bay; but, although anxious to do so, I was unable to make an expedition to that island. Through the kindness of my friend Mr. S. N. Hutchins, of Ardnagashel House, Bantry, I am enabled to send you an account of a visit paid to the island some years ago. Mr. Hutchins says:—"I only paid one visit to the Bull, Cow, and Calf Rocks, in June, 1868, when I landed on the three Rocks on the same day. I found

Gannets' nests on the Bull only. There were full-grown birds in adult plumage-that is, white with black-tipped wings; others younger, black with white spots; and others in various stages, down to very young birds in the nest covered with white down. I found only a few addled eggs, very dirty, but when washed of a dull white. The Gannets were in great numbers, certainly many hundreds, and as they were flying about the rock on all sides I could not attempt to count them. I could have captured any number, and did bring on shore two young ones in the black and white speckled plumage. I have heard that they breed on the Skelligs (as mentioned by Mr. Harting, in his 'Handbook of British Birds,' Introduction, p. xxii), but not on the Cow or Calf. They could not nest on the Calf, as the sea frequently washes over it in heavy weather, and I found no trace of them on the Cow, though it would be a safe breeding-place. The Bull is much higher than either. I found no other birds nesting at that time, though I hear it is a favourite breeding-place for other kinds. The smell was not pleasant, for when a bird was alarmed, or about to fly off the rock, it disgorged the contents of its stomach—generally a Pilchard of 'an ancient and fish-like smell.' \* \* \* The Skelligs are about twenty miles N.N.W. from the Bull. Cornish Choughs and Rock Pigeons are common on that coast." The Gannets still continue to resort to the Bull for breeding. I have seen an egg taken off that rock in 1880. Choughs breed and are rather common at Three Castle Head, Dunmanus Bay (the next bay to the south of Bantry Bay), and I have also seen them at Mizen Head. The sufferings of the poor light-house men on the Calf Rock have lately attracted much interest. It is gratifying to know that they are safe and sound at last, owing to the heroic bravery of O'Shea, the Dursey islander.-WM. W. FLEMYNG (Portlaw, Co. Waterford).

On the Occurrence of Sabine's Gull, for the first time, in Norfolk.—The gunners and dealers in Yarmouth were much exercised last October (1881) by the appearance, on Breydon and its vicinity, of two small gulls with slightly forked tails, which, when shot, answered to no species with which they were acquainted. Others were said to have been seen, but if, as I was informed, some Little Gulls, Larus minutus, appeared at the same time, a doubt arises as to the identification of species, beyond the two killed. One of these specimens, killed on the 21st or 22nd of October, which I was fortunate enough to secure for my collection, was sent to me in the flesh, and, being in immature plumage—as was also the other bird obtained on the 17th of the same month—I should have had some difficulty in identifying it but for the forked tail. In its adult state Sabine's Gull was, of course, well known to me, and on turning to the coloured representations of the young in Gould's 'Birds of Great Britain' and in Dresser's 'Birds of Europe,' I found my specimen most accurately

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delineated, the peculiar markings on the back and wing-coverts being I have, fortunately, had the chance of comparing my unmistakable. specimen (which proved to be a female, and which closely resembles the young bird figured by Gould) with the other Yarmouth specimen, and though the sex was not noted when it was stuffed, and the measurements cannot be accurately taken now, I think-from its being slightly larger than mine, and the tints of the plumage generally brighter-it is, in all probability, a male. It differs chiefly from my own in the following points:-The bill, though the same length, looks stouter, being less tapering in form. The feathers on the crown of the head and nape are darker in tint and more distinctly freckled. The white line over the eye and extending back forms a marked feature, though scarcely traceable in mine, and the forehead and feathers extending to the nostrils are of a The grey tints of the neck, passing forwards and downwards in front of the pinions, when close (as shown in Gould's plate) cover a more extended space, are darker and more distinctly barred, but in both the throat, breast, and under parts generally are of a spotless white. feathers on the back and wing-coverts have the terminal margins much brighter, and the mottled appearance is therefore more striking. outer webs of the primaries are a more pronounced black, and the sixth primary has an oblong white patch on the outer web, besides the white tipthe white of the inner web passing round the tip of the feather, where it joins on to a black spot having this oblong white patch just above it. This peculiarity is not traceable in my own specimen. The tail-feathers have the black on the anterior portions, like the primaries, of a richer hue, and the white marginal lines are much more vivid. The description given by Mr. Harting ('Birds of Middlesex,' p. 252) of the Middlesex specimen agrees very closely with my own, and though the sex was not ascertained it was probably, I should say, a female. Like mine, also, it had no "white spot of an oval shape" on the outer web of the sixth primary, which, as before stated, is so noticeable in the other Yarmouth bird, whether a male or not. It would seem, however, that the young of this species differ not a little, inter se, independent of any sexual differences, as the first Irish specimen (Belfast Bay, Sept. 1822), recorded and described by Thompson, exhibited the following peculiarities, not observable in either, or in one only, of the Norfolk birds, nor in that killed in Middlesex. The sex is not given :-(1) A narrow line of "greyish black, closely encircling the front and lower part of the eye." "Space immediately above the eye," white, as in one, only, of the Yarmouth birds. (2) Back, wing-coverts, &c., "blackish grey, tinged with yellowish brown." On the outer web of the sixth primary, "a white spot of an oval shape appears," as in the supposed Yarmouth male. (3) "Under part of throat and under part of the breast pale ashcolour." In both Norfolk birds the under part of the throat and passing

downwards to the vent, between the grey patches that front the carpal joint, on either side, is a pure unbroken white. The measurements of the two Norfolk birds are as follows, those of the female taken in the flesh, of the other when stuffed:—

	Female.	Supposed male.
Length from tip of bill to end of longest tail-feather	131 in.	14 in.
Wing from carpal joint to end of longest primary (1st	) 93 ,,	104 ,,
Tarsus	. 11 ,,	18 ,,
Middle toe and claw	. 11	11 ,,

The hind toe and claw are exceedingly small, and Thompson points out that it is "placed so high that the point of the nail does not reach within 1½ line of the ground." Tail-feathers twelve. The irides and bill in my bird were dark brown, the legs and feet a soiled flesh-colour.—Henry Stevenson (Norwich).

THE "CHURRING" OF THE NUTHATCH .- Many years ago, when a boy, I was walking with a local authority on bird matters and called his attention to the curious "chur-r-ring" of a Nuthatch. He at once insisted that the noise was made by the Lesser Spotted Woodpecker; in vain I asserted that the latter bird was never seen in the neighbourhood, and he was only convinced by my fetching a gun and shooting the bird (a Nuthatch). I was so familiar with the noise, and had so often watched the bird in the act of making it, that I was surprised to find that everyone else was not acquainted with the fact. In more recent times I have watched Nuthatches "churring" in the New Forest and in Kensington Gardens. Immediately after the latter case a letter appeared in 'The Field,' in which, if I remember rightly, the writer stated that he had heard the Lesser Spotted Woodpecker in Kensington Gardens. I cannot help thinking that the noise is often attributed to Woodpeckers, especially as I do not find any notice of the habit in ornithological works when dealing with the Nuthatch, though in connection with Woodpeckers the habit is often dwelt upon at considerable length. No doubt, however, some of your readers will corroborate my observations.—J. Young (64, Hereford Road, Bayswater).

Baillon's Crake in Co. Waterford.—Through the kindness of Dr. Burkitt, of Waterford, whose name is well known to ornithologists as once the possessor of the single Irish specimen of the Great Auk, I am enabled to record Baillon's Crake, Porzana Bailloni, from a second Irish locality, which is well authenticated by a label on the stand stating that the bird was "taken alive, on Tramore Strand, County Waterford, April 6th, 1858." This interesting Rail has been, for many years, in Dr. Burkitt's excellent series of South Irish birds, labelled as "Crex pusilla," and having heard of the circumstance through several friends I requested permission to examine it, when I found the bird to be, as I expected, Baillon's Crake. I have also been allowed by Mrs. Moss to examine carefully the specimen

so beautifully prepared by her late husband, and found this specimen, already recorded by Thompson, to be also certainly Baillon's Crake. It is singular that the Little Crake has not yet occurred in Ireland, and another bird which I am looking for, is the Pink-footed Goose, both of which might be expected to occur.—A. G. More (Curator of the Natural History Museum, Leinster House, Dublin).

RARE BIRDS IN SUSSEX.—I am sorry to record the capture of two Peregrine Falcons in the neighbourhood of Hastings, neither, however, of very recent date. The first, a male in fine plumage, was obtained in November, 1879, on the East Hill at Hastings, above the cliffs between the Old Town and Ecclesbourne Glen. The bird was shot by a labourer, and was sold by him for a couple of shillings to Mr. Sorrell, a naturalist, of Old Humphrey's Avenue, in whose collection it now is. specimen, also a male, was shot at Broomham Park, Guestling, and is now in possession of Sir Anchitel Ashburnham, on whose property it was killed. Mr. Bristowe, naturalist, of St. Leonards-on-Sea, had a Grey Phalarope, Phalaropus lobatus, brought to him for preservation, which was shot in the Pevensey marshes about the 6th December last. Messrs. Pratt & Son, of Brighton, inform me that they had a specimen of the Little Gull, Larus minutus, in immature plumage, brought to them on November 28th, just killed at Lancing, and another, in similar plumage, two days after, killed near the same place.—Thomas Parkin (Halton, Hastings).

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CHIFFCHAFF IN OXFORDSHIRE IN WINTER.—It seems worthy of record that the Chiffchaff has remained here during the whole of this winter. I heard its note several times in December, more especially towards the end of the month. Since then I have heard it frequently up to the present date (January 24th). On the morning of the 15th January I had a good view of the bird. I cannot help thinking that this species has a better claim to be considered a resident in Britain than is generally supposed.—F. C. Aplin (Bodicote, Oxon).

Fork-tailed Petrel in Co. Antrim.—On 22nd November last, after a very severe westerly gale on the night of the 21st, a Fork-tailed Petrel was caught alive near Dunmurry, Co. Antrim (inland). After the same gale a Fork-tailed Petrel was got at Lurgan, Co. Armagh; one at Ballymoney, Co. Antrim; and one at Killinchy, Co. Down; the two former far inland. In addition to these, one Storm Petrel and three of the Fork-tailed species were obtained on Lough Neagh, near Toome Bridge, Co. Antrim, regarding which Colonel Bruce wrote me, in reply to enquiries, as follows:—
"So far as my information goes, the Storm Petrel was never seen in this locality before. Two of the three birds were first seen together and were afterwards shot separately; the third was also killed. They were flying when shot, but were first seen sitting on the water. They appeared very tame. The bird I

now send you (it was also a Fork-tailed), was found dead on the shore (i. e., of Lough Neagh), near some nets, against which it had probably killed itself." I saw all the birds above mentioned.—R. LLOYD PATTERSON (Hollywood, Co. Down).

Fork-tailed Petrel near Ringwood.—Seeing several notices of the occurrence of this species during November and December in various parts of the British Islands, I am induced to record its occurrence in this neighbourhood. During December three specimens at least of this Petrel were met with near Ringwood, one of which I had the pleasure of examining. This specimen weighed scarcely an ounce, and measured exactly eighteen inches across its expanded wings. The stomach contained only a small quantity of oily matter, although the bird was in very fair condition. It was picked up dead, doubtless driven inland by stress of weather. Another specimen of this bird was picked up, and partly devoured by a cat. A friend writing me in December last, from Co. Westmeath, says:—"My son watched a Storm Petrel on our lake, blown in by a storm the previous night, sixty miles from the sea; it disappeared next day."—G. B. Corbin (Ringwood, Hants).

Storm Petrel Inland.—A Storm Petrel, which had evidently been dead some days, was found on a hedge not far from here, on October 23rd. It was lying on its back on the top of the hedge. I suppose it must have been driven inland by a gale and blown against some tree which killed it. I believe the occurrence of this bird so far inland is not very usual; at any rate, so far as I know this is the first which has been met with in this neighbourhood.—John A. Willmore (Queenwood College, near Stockbridge, Hants).

GREAT GREY SHRIKE AT DURHAM.—A specimen of this Shrike was shot here on the 12th January last by Mr. G. H. Procter. It was a male with but slight indications of immaturity. The feathers on the breast were tinged with pink. I also received, for preservation, an immature male of this species on the 8th of November last, which was shot in Worcestershire, and which is now in the collection of Mr. J. Sutton, of Western Hill.

—J. Cullingford (University Museum, Durham).

TENGMALM'S OWL IN NORFOLK.—An adult male of this rare species occurred on the night of October 30th, 1881, having been caught and killed by the keeper of the Cromer lighthouse, who found it fluttering against the lantern. Mr. J. H. Gurney, jun., was fortunate enough to secure it in the flesh, and thus ascertained the sex. It measured nine inches and a quarter in length, and weighed three ounces and a half. This is the third specimen of this bird obtained in this county.—Henry Stevenson (Norwich).

Birds and Telegraph-wires.—In connection with this subject, an incident I think worth noting was given me the other day, by Capt. A. P. Moore, of Weybread, Suffolk. Several years ago, when walking one stormy winter's day on a farm in Buckinghamshire, skirting the main line of the London and North Western Railway, he came on a flock of Larks feeding in a turnip-field next the rails. The birds all rose at his approach, and the whole flock flew directly into the wires, which are very numerous there. Captain Moore picked up thirty-six dead Larks, a Thrush, and a Blackbird which had risen with the flock, and there were several cripples which escaped him. The birds were all much mutilated; the heads of several were cut off, and many had lost a wing or a leg. The plate-layers on this line said they very frequently found dead partridges under the wires on going to their work in the morning.—C. Candler (Harleston, Norfolk).

CROSSBILLS IN Co. KILDARE.—On the 28th of December last I met with a flock of seven or eight Crossbills, Loxia curvirostra, near Rathangan, Co. Kildare, and shot one, a male, in grayish brown plumage. The top of the head showed a tinge of red, and to a less extent the breast and throat also. When I first observed the birds they were fitting busily about some Scotch firs, and afterwards settled on some larch trees. They were very tame, and allowed me to walk round them quite close and pick out a specimen.—Percy E. Freke (Rosemount, Dundrum).

Osprey and Honey Buzzard in Lincolnshire.—I received, for preservation, a specimen of each of these birds from Lincolnshire, last October. The Osprey, apparently a bird of the year, was shot in North Lincolnshire; and the Honey Buzzard, a fine dark-plumaged specimen, was shot in the South. Both were males.—J. Cullingford (University Museum, Durham).

HONEY BUZZARDS IN BUCKINGHAMSHIRE.—I hear that two Honey Buzzards were killed in Shabbington Woods, near Brill, by the late Mr. Henley's head gamekeeper, on or about the 23rd September last. One, a very dark bird, was preserved by Mr. Darby, of Oxford. Some wasps were taken from the throat, and the stomach contained a few of the larvæ.—F. C. Aplin (Bodicote, Oxon).

MIGRATION OF BIRDS AT HARWICH.—On the 3rd and 5th October Hooded Crows were seen coming off the sea, and on the latter date three Fieldfares and seven Redwings were seen. On the 17th thousands of Larks were seen crossing the sea; they continued coming all day. On the 20th large numbers of Hooded Crows, Rooks, Starlings, and Wagtails, were seen coming over the sea, many of the latter resting on the fishing-boats whilst at sea. A great many Golden-crested Wrens arrived, and might be seen in almost every hedgerow.—F. Kerry (Harwich).

FALCONRY IN WALES.—In 'The Zoologist' for October last (p. 405) Mr. E. C. Phillips refers to "old Morgan the falconer, a small farmer living at Nantyrodin, near Llanwrtyd Wells," whom he designates as "one of the last of his race." Allow me to point out that this is a mistake. Old Morgan, or, to call him by his right name, Morgan Williams, is not a link with the old race of Welsh falconers, but was a pupil of J. C. Belany, who published 'A Treatise on Falconry' in 1841, and he knew nothing of falconry until that writer instructed him. I met him at Garth some time ago, and ascertained the fact now stated.—F. H. Salvin (Whitmoor House, near Guildford).

Varieties of the Red Grouse was obtained in January, at Ballina, Co. Mayo; the ground colour of the plumage was a grey stone-colour. A Partridge received from Holyhead presents a somewhat similar appearance; the chesnut colour of the forehead, throat, and sides of head is faded to a cream-colour; the horse-shoe mark on the belly is a pale brown, and the whole plumage is a very pale grey; all the parts which are usually a yellowish brown of various shades are toned down to a pale yellowish or cream-colour. Both birds were in a plump healthy condition.—A. WILLIAMS (Dublin).

Waxwing Near Birmingham.—A specimen of this uncertain migrant was killed by a lad with a catapult on January 30th, at Rednall, a few miles from here, and was taken to F. Coburn, one of our local stuffers, who kindly sent it to me. Upon dissection, it proved to be a young female, and had evidently been feeding upon haws, as I found several stones in the intestines. As far as I can learn, it is many years since a specimen was procured in this district. I have one in my collection which was killed in Aston Park about 1845. Should any of your readers know of others, I should be glad of the information.—R. W. Chase (Edgbaston).

LITTLE GULL AND BLACK TERN IN LINCOLNSHIRE. — During last autumn I had three Little Gulls and the same number of Black Terns, all young birds, from Lincolnshire. Two of the Terns are in the collection of Mr. F. Raine, of this city.—J. Cullingford (University Museum, Durham).

LANDRAIL IN DORSETSHIRE IN WINTER.—This bird being a summer visitor to the British Islands, it may be worth recording that one was obtained near Bridport in the middle of January last; and another was shot by myself in white turnips at Bradford Abbas, near Sherborne, on the 1st February.—DARELL STEPHENS (Bridport).

PEREGRINE IN NORTHAMPTONSHIRE.—A Peregrine Falcon was taken alive, early in October last, at Byfield Reservoir, having come in contact with the telegraph-wires while in pursuit of one of the Ducks which frequent the water.—F. C. Aplin (Bodicote, Oxon).

SHORE LARR NEAR LONDON.—I have a young male Shore Lark, Alauda alpestris, which was caught with some Sky Larks at the end of October last, near Stamford Hill, Clapton. It is still alive, in perfect health, and coming nicely into song.—L. W. HADLER (London Fields, Hackney).

SNAKE Potson as a Pepsine.-Much has been said and written during the past three months concerning the so-called peptic properties of serpent virus, founded on the observations of Drs. de Lacerda and Ladislao Netto. of Brazil, who discovered that the secretion obtained from the poison-sacs of certain Crotalida acted readily as a solvent to hard-boiled egg and other forms of albumen. This is, undoubtedly, a very curious and interesting fact, and one which opens a wide field for speculative investigation. has not the term "peptic" been applied a little hastily? The action of the gastric juice, to which the virus is compared in this respect, consists of something more than merely dissolving albumen. The free hydrochloric acid which it contains would effect this by itself under certain conditions: but it requires the chemical process of the true pepsine, in addition, to render nitrogenous food capable of being assimilated, viz., the conversion of albumen into peptone and albumenose, its change from the colloid form. which is incapable of dialysis, to the crystalloid, which may be absorbed through the coats of the vessels. To this alone, and not to the simple solution of azotised matter, can the expression, "peptic action" be accurately applied (πεπτω, to digest); and no such property has yet been demonstrated to exist in snake-poison. Possibly this solvent or disintegrating power may serve to account, in some measure, for the intense local severity of a venonous snake-bite. Anyone who has had the opportunity of watching the tiny punctures which have been allowed to take their course without' being submitted to cauterization, must have observed how disproportionately wide-spread and destructive is the surrounding inflammation, and what intractable ulcers it forms. Phlegmonous erysipelas, sloughing of the areolar tissue, unhealthy abscesses, and gangrene of the neighbouring parts are very liable to follow, and often kill the patient who has recovered from the primary effects of the bite; though, no doubt, the supervention of these is due as much to the general lowering of the vital powers, consequent on the shock to the system, as to the local presence of morbific matter .-ARTHUR STRADLING (Teignmouth).

FLOATING CRAB AT PENZANCE.—I have had the good fortune to secure seven specimens (six males and one female) of the rare Floating Crab, Planes Linnaana, at one haul. They were taken out of soil and sea-weed growing on a derelict cask of paraffin picked up at sea, about six miles from this place. They vary a little in size, but are all about five-eighths of an

inch in length, and as nearly as possible the same in breadth at the broadest part of the carapace. They look longer than they are broad, but this is an optical delusion due to the narrowing part of the after part of the carapace. Two of the males and the female when alive were of a uniform rich redbrown over the back. In one about half of the front part of the back was of a pearly white, the rest of the carapace being of the same rich red-brown. This one had on either side of the surface of the carapace and on some of its legs parasitical barnacles, each of less than one-twenty-fifth of an inch in length. One of the crabs were of the same rich red-brown, with a bright pearl-white spot behind each eye; and one had the anterior half of the carapace pearl-white and the posterior part mottled grey. The crabs were all alive when I received them, and, for their size, I never met with any having such great muscular power. I report thus in detail, because I believe the occurrence of this crab has not been before recorded in 'The Zoologist.'— Thomas Cornish (Penzance).

#### PROCEEDINGS OF SCIENTIFIC SOCIETIES.

LINNEAN SOCIETY OF LONDON.

February 2, 1882.—CHARLES B. CLARKE, M.A., Vice-President, in the chair.

The Rev. B. Scortechini, of Queensland, and Mr. John Marshall, of Taunton, were balloted for and elected Fellows of the Society.

An extract of a letter from Mr. Thomas Edward, of Banff, was read, and a specimen shown of a supposed rare marine annelid obtained by a fisherman in deep water. It was identified by Dr. Murie as belonging to the Nemertean worms, viz., Cerebratulus angulatus, a marine form found chiefly in the northern parts of the British coasts, but nevertheless seldom seen alive by naturalists.

Mr. E. M. Holmes exhibited a bottle containing examples of a new blistering insect from Madagascar, belonging to the genus *Epicauta* and allied to *E. ruficollis*. It had been brought to this country by Dr. G. W. Parker, physician to the Queen of Madagascar.

A communication was read from Major-General Benson, particularly referring to Dr. Cobbold's use of the name Fasciola Jacksoni for certain Flukes obtained from the Elephant. These had been described by Major-Gen. Benson, in 1867, in the 'Rangoon Times,' where an account of the epizootic outbreak was first given. Dr. Cobbold thereupon explained that the initials of the author having alone been appended to the article in question, it consequently received less attention than it would otherwise have had, for to Major-Gen. Benson unquestionably belonged the credit of

having first directed attention to the Elephant mortality from the presence of the said species of Fluke. The worm itself, however, was first discovered by Jackson, twenty years before the Rangoon letter appeared—namely, in 1847.

A paper by Mr. Otto Tepper, "On Animal Intelligence," was read. The author narrated instances coming under his own observation of cats regularly unfastening the latch of a door to obtain entrance. In the case of ants he has watched and studied their power of communicating with each other. Upon these and such like kindred instances the author adduces the possession of reasoning to what is more usually denoted instinct.—J. Murie.

#### ZOOLOGICAL SOCIETY OF LONDON.

February 7, 1882.—Prof. W. H. FLOWER, F.R.S., President, in the chair.

Mr. Henry Seebohm exhibited and made remarks on a series of Goldfinches (obtained at Krasnoyarsk, in Central Asia), which presented every form of transition between *Carduelis major* and *C. caniceps*.

The Secretary exhibited, on behalf of Mr. Peter Inchbald, two curious hybrid Ducks, obtained on some ornamental water near Darlington.

Mr. St. George Mivart read a paper on the classification and distribution of the Æluroidea. He regarded this suborder as best divisible into three families—(1) Felidæ, (2) Viverridæ, (3) Hyænidæ. The Felidæ he proposed to subdivide into but two genera, Felis and Cynælurus; the Viverridæ into the five subfamilies, (1) Viverrinæ, (2) Galidictinæ, (3) Euplerinæ, (4) Cryptoproctinæ, and (5) Herpestinæ. The Hyænidæ were referred to two subfamilies, Protelinæ and Hyoninæ. The author regarded Cryptoprocta as a true Viverrine animal, attaching but very little importance to dental characters save as discriminating species and genera. The Galidictinæ were arranged to include the genera Galidictis, Galidia, and Hemigalidia; the last-named genus having been instituted for the species previously known as Galidia olivacea and G. concolor.

Mr. W. A. Forbes read a paper on some points in the anatomy of the Indian Darter, *Plotus melanogaster*, and gave a description of the mechanism of the neck in this genus in connexion with the habits of the birds.

A communication was read from Prof. P. Martin Duncan, containing descriptions of some recent Corals collected by Mr. J. Y. Johnson at a few fathoms depth in the sea off Funchal, Madeira.

Mr. Stuart O. Ridley read a paper on the arrangement of the Coralliida, and gave a review of the genera and species of this family, which contains the Red Corals. The description of a new species obtained in the Mauritius was given, as well as an interesting—but probably not new—form, said to come from Japan.—P. L. Sclater, Secretary.